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Notes:

1. Untranslatable words are replaced with asterisks (***).
2. Texts in the figures are not translated and shown as it is.

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FULL CONTENTS

[Claim(s)]

[Claim 1] Required equipments are computed about the model and quantity of the machine which is needed for said order construction based on demand forecasting based on the order information in order construction of a road, construction, etc., and the standard throughput of the machine corresponding to the construction tender information on said order construction. Ways and means of the machine characterized by computing an insufficiency by deducting the possession machine of the operation contractor of said order construction from said computed required equipments, and calculating a part for supply necessity.

[Claim 2] Ways and means of the machine according to claim 1 characterized by defining a part for said supply necessity from the rental base near the spot of said order construction among two or more rental bases when compensating a part for said supply necessity with a rental.

[Claim 3] Ways and means of the machine according to claim 1 or 2 characterized by performing said demand forecasting based on demand-forecasting factors, such as a season, settlement-of-accounts time, a market condition, and the contents of said order construction, and computing said required equipments in a predetermined period and a predetermined, predetermined place according to said demand forecasting.

[Claim 4] Based on said construction tender information, load calculation of said required equipments, and the required machine corresponding to the contents of work, such as conveyance, is selected. Set up subjects, such as sandstone, andesite, etc. in said contents of work, and it is based on the standard throughput for every model of said selected required machine, and the kind of said subject. The work load conditions of said contents of work by which choose the model of machine needed out of said required machine, and load is carried out to the selected model are selected. Based on said standard throughput and said work load conditions of the selected model, calculate the quantity of work per unit time for every model of

said machine, and The quantity of work of said construction tender information, Ways and means of the machine according to claim 1 to 3 characterized by computing the model and quantity of said machine which is required equipments based on the quantity of work per unit time calculated for every model.

[Claim 5] The demand for every area according [a part for said supply necessity of said machine] to said order information, Based on said computed required equipments and the information on the stock according to model for said every rental base, calculate a part for said supply necessity according to areas, such as north and south, about the model and the number of said machine, and the optimal rearrangement plan classified by model for every base is drawn up. Ways and means of the machine according to claim 1 to 4 characterized by rearranging said machine.

[Claim 6] The amount of [of said machine] said supply necessity calculates a part for said supply necessity based on the demand for every user about the user who becomes the operation contractor of said order construction, and the information on the stock according to model for said every user, and it draws up the optimal rearrangement plan classified by model for said every user. Ways and means of the machine according to claim 1 to 5 characterized by rearranging said machine.

[Claim 7] Ways and means of the machine according to claim 1 to 6 characterized by performing ***** of the arrangement information on said machines, such as information on the stock according to model for said every rental base, and information on the stock according to model for said every user, through networks, such as the Internet.

[Claim 8] The 1st step which computes the required equipments about the model and quantity of said machine in said order construction by setting up the construction plan based on said order construction, The 2nd step which computes the possession model of said usable machine of said user for every days and months in said construction plan based on the user machine use plan computed from the stock according to model for every user, Have the 3rd step which computes the demand for said every user by pulling the calculation value of the possession model of said usable machine in said 2nd step from the calculation value of the possession model of model calculation of a machine required for said order construction in said 1st step to said machine, and [said 1st step] Said 3rd step is the ways and means of the machine according to claim 1 to 7 characterized by performing amendment about a part for a weather report margin to calculation of the demand for said every user including the step which performs change margin addition by the weather change beforehand set as calculation of the possession model of said machine.

[Claim 9] The storage with which the program which can perform the ways and means of a machine according to claim 1 to 8 was recorded.

[Claim 10] A demand-forecasting means to forecast the demand for a machine based on the

order information in order construction of a road, construction, etc., The required equipments calculation means which computes required equipments about the model and quantity of the machine which is needed for said order construction based on said demand forecasting and the capability of a possession machine, The supply system of the machine characterized by having a supply required part calculation means to compute an insufficiency by deducting the possession machine of the operation contractor of said order construction from said computed required equipments, and to calculate a part for supply necessity.

[Claim 11] Said supply required part calculation means is the supply system of the machine according to claim 10 characterized by calculating a part for said supply necessity from the rental base near the spot of said order construction among two or more rental bases when compensating a part for said supply necessity with a rental.

[Claim 12] Based on demand-forecasting factors, such as a season, settlement-of-accounts time, a market condition, and the contents of construction order, perform said demand-forecasting means, and said demand forecasting [said required equipments calculation means] The supply system of the machine according to claim 10 or 11 characterized by computing said required equipments in a predetermined period and a predetermined, predetermined place according to said demand forecasting.

[Claim 13] Said required equipments calculation means is loaded based on the construction tender information on said order construction. Select the required machine corresponding to the contents of work, such as conveyance, and subjects, such as sandstone, andesite, etc. in said contents of work, are set up. It is based on the standard throughput of said selected required machine, and the kind of said subject. The work load conditions in said contents of work by which choose the model needed out of said required machine, and load is carried out to said selected model are selected. Based on said selected type of standard throughput and said work load conditions, calculate the quantity of work per unit time for every model of said machine, and The quantity of work of said construction tender information, The supply system of the machine according to claim 10 to 12 characterized by computing the model and quantity of the machine which is said required equipments based on the quantity of work per unit time for said every model.

[Claim 14] The demand for every area according [said supply required part calculation means] to said order information, and said computed required equipments, Based on the information on the stock according to model for said every rental base, calculate a part for said supply necessity according to areas, such as north and south, about the model and the number of said machine, and the optimal rearrangement plan classified by model for every base is drawn up. The supply system of the machine according to claim 10 to 13 characterized by rearranging said machine.

[Claim 15] Said supply required part calculation means calculates a part for said supply

necessity based on the demand for every user about the user who becomes the operation contractor of said order construction, and the information on the stock according to model for said every user, and draws up the optimal rearrangement plan classified by model for said every user. The supply system of the machine according to claim 10 to 14 characterized by rearranging said machine.

[Claim 16] Said supply required part calculation means is the supply system of the machine according to claim 10 to 15 characterized by ***** (ing) the information on the stock according to model for said every rental base, and the information on the stock according to model for said every user through networks, such as the Internet.

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention belongs to the ways and means and its supply system of the portable machine according to an operating season or demand time.

[0002]

[Description of the Prior Art] The construction equipment which supplies construction equipment and is needed by sale, rental, etc. is conventionally supplied in the construction equipment maker or the leasing company of construction equipment to business-proposition affairs, such as mining production, an order received of construction, etc. which a user plans.

[0003]

[Problem to be solved by the invention] However, there was a problem hung up over below in the conventional technology.

[0004] Since information, including the construction order situation about the business-proposition affair which a user performs, a season, an accounting period, a market condition, *****, etc., and information, including the possession model in supply side of construction equipment, a place, operation information, reservation assignment, etc., draw up the electric supply plan of construction equipment, without the ability using systematically The supply and demand of the model might become imbalanced respectively for every area and every user.

[0005] Moreover, when a margin was given to supply so that short supply may not be started, the supply cost as the whole became high and the supply side and user side had the problem that the competitive power about a business-proposition affair declined.

[0006] [the place which this invention is made in view of this problem, and is made into the purpose] The amount-demanded prediction based on the construction order situation before a bid, a season, an accounting period, a market condition, soil texture, etc., It is in the point of offering the ways and means and its supply system of the machine which arranges a machine

the optimal according to an operating season or demand time, in consideration of supply information, including the possession model of portable machine, a place, operation information, reservation quota information, etc., and the information on a mechanical rental base.

[0007]

[Means for solving problem] Demand forecasting based on order information [in / in the summary of this invention according to claim 1 / order construction of a road, construction, etc.], Required equipments are computed about the model and quantity of the machine which is needed for said order construction based on the standard throughput of the machine corresponding to the construction tender information on said order construction. An insufficiency is computed by deducting the possession machine of the operation contractor of said order construction from said computed required equipments, and it consists in the ways and means of the machine characterized by calculating a part for supply necessity. The summary of this invention according to claim 2 consists in the ways and means of the machine according to claim 1 characterized by defining a part for said supply necessity from the rental base near the spot of said order construction among two or more rental bases, when compensating a part for said supply necessity with a rental. The summary of this invention according to claim 3 said demand forecasting A season, settlement-of-accounts time, It carries out based on demand-forecasting factors, such as a market condition and the contents of said order construction, and consists in the ways and means of the machine according to claim 1 or 2 characterized by computing said required equipments in a predetermined period and a predetermined, predetermined place according to said demand forecasting. The summary of this invention according to claim 4 is based on said construction tender information in calculation of said required equipments. Select the required machine corresponding to the contents of work, such as shipping and conveyance, and subjects, such as sandstone, andesite, etc. in said contents of work, are set up. It is based on the standard throughput for every model of said selected required machine, and the kind of said subject. The work load conditions of said contents of work by which choose the model of machine needed out of said required machine, and load is carried out to the selected model are selected. Based on said standard throughput and said work load conditions of the selected model, the quantity of work per unit time is calculated for every model of said machine. Quantity of work of said construction tender information, Based on the quantity of work per unit time calculated for every model, it consists in the ways and means of the machine according to claim 1 to 3 characterized by computing the model and quantity of said machine which is required equipments. The summary of this invention according to claim 5 [the amount of / of said machine / said supply necessity] It is based on the demand for every area using said order information, said computed required equipments, and the information on the stock according to

model for said every rental base. A part for said supply necessity is calculated according to areas, such as north and south, about the model and the number of said machine, the optimal rearrangement plan classified by model for every base is drawn up, and it consists in the ways and means of the machine according to claim 1 to 4 characterized by rearranging said machine. The summary of this invention according to claim 6 [the amount of / of said machine / said supply necessity] Based on the demand for every user about the user who becomes the operation contractor of said order construction, and the information on the stock according to model for said every user, calculate a part for said supply necessity, and the optimal rearrangement plan classified by model for said every user is drawn up. It consists in the ways and means of the machine according to claim 1 to 5 characterized by rearranging said machine. The summary of this invention according to claim 7 consists in the ways and means of the machine according to claim 1 to 6 characterized by performing ***** of the arrangement information on said machines, such as information on the stock according to model for said every rental base, and information on the stock according to model for said every user, through networks, such as the Internet. The summary of this invention according to claim 8 sets up the construction plan based on said order construction. The 1st step which computes the required equipments about the model and quantity of said machine in said order construction, The 2nd step which computes the possession model of said usable machine of said user for every days and months in said construction plan based on the user machine use plan computed from the stock according to model for every user, Have the 3rd step which computes the demand for said every user by pulling the calculation value of the possession model of said usable machine in said 2nd step from the calculation value of the possession model of model calculation of a machine required for said order construction in said 1st step to said machine, and [said 1st step] Said 3rd step consists in the ways and means of the machine according to claim 1 to 7 characterized by performing amendment about a part for a weather report margin to calculation of the demand for said every user including the step which performs change margin addition by the weather change beforehand set as calculation of the possession model of said machine. The summary of this invention according to claim 9 consists in the storage with which the program which can perform the ways and means of a machine according to claim 1 to 8 was recorded. A demand-forecasting means by which the summary of this invention according to claim 10 forecasts the demand for a machine based on the order information in order construction of a road, construction, etc., The required equipments calculation means which computes required equipments about the model and quantity of the machine which is needed for said order construction based on said demand forecasting and the capability of a possession machine, An insufficiency is computed by deducting the possession machine of the operation contractor of said order construction from said computed required equipments, and it consists in the supply system of the machine

characterized [the feature and / to carry out] by having a supply required part calculation means to calculate a part for supply necessity. The summary of this invention according to claim 11 consists in the supply system of the machine according to claim 10 characterized by said supply required part calculation means calculating a part for said supply necessity from the rental base near the spot of said order construction among two or more rental bases when compensating a part for said supply necessity with a rental. The summary of this invention according to claim 12 performs said demand forecasting based on demand-forecasting factors, such as a season, settlement-of-accounts time, a market condition, and the contents of construction order, and said demand-forecasting means is said required opportunity. A ***** means consists in the supply system of the machine according to claim 10 or 11 characterized by computing said required equipments in a predetermined period and a predetermined, predetermined place according to said demand forecasting. The summary of this invention according to claim 13 [said required equipments calculation means] Based on the construction tender information on said order construction, load and the required machine corresponding to the contents of work, such as conveyance, is selected. Set up subjects, such as sandstone, andesite, etc. in said contents of work, and it is based on the standard throughput of said selected required machine, and the kind of said subject. The work load conditions in said contents of work by which choose the model needed out of said required machine, and load is carried out to said selected model are selected. Based on said selected type of standard throughput and said work load conditions, calculate the quantity of work per unit time for every model of said machine, and The quantity of work of said construction tender information, Based on the quantity of work per unit time for said every model, it consists in the supply system of the machine according to claim 10 to 12 characterized by computing the model and quantity of the machine which is said required equipments. The summary of this invention according to claim 14 [said supply required part calculation means] It is based on the demand for every area using said order information, said computed required equipments, and the information on the stock according to model for said every rental base. A part for said supply necessity is calculated according to areas, such as north and south, about the model and the number of said machine, the optimal rearrangement plan classified by model for every base is drawn up, and it consists in the supply system of the machine according to claim 10 to 13 characterized by rearranging said machine. The summary of this invention according to claim 15 [said supply required part calculation means] Based on the demand for every user about the user who becomes the operation contractor of said order construction, and the information on the stock according to model for said every user, calculate a part for said supply necessity, and the optimal rearrangement plan classified by model for said every user is drawn up. It consists in the supply system of the machine according to claim 10 to 14 characterized by rearranging said machine. The summary of this invention according to claim 16 [said

supply required part calculation means] It consists in the supply system of the machine according to claim 10 to 15 characterized by ***** (ing) the information on the stock according to model for said every rental base, and the information on the stock according to model for said every user through networks, such as the Internet.

[0008]

[Mode for carrying out the invention] The form of operation of this invention is hereafter explained in detail based on Drawings.

[0009] Drawing 1 is the figure showing the outline of the supply system of the machine concerning the form of this operation.

[0010] [the system which performs the ways and means of the machine concerning the form of this operation] as shown in drawing 1 A demand-forecasting means 10 to perform amount-demanded prediction of construction machinery (construction equipment, machine), and the required equipments calculation means 15 which computes the required equipments which are needed for order construction from demand forecasting, Outline composition is carried out with a supply required part calculation means 20 to compute an insufficiency by deducting the possession machine of the operation contractor of order construction from required equipments, and a rearrangement means 30 to perform rearrangement of construction equipment.

[0011] The demand-forecasting means 10 performs demand forecasting about the demand T10 for every area about the model and the number of construction equipment based on demand-forecasting factors, such as a season D10, the settlement-of-accounts time D20, the construction order situation D30 before a bid, and a market condition D40.

[0012] The construction tender information D50 that the required equipments calculation means 15 has the construction information (the contents of work) in which construction methods, such as shipping, conveyance, etc. in order construction, a scale, and classification are included with demand forecasting, Based on the machine characteristic information C10 that the mechanical characteristics, such as standard throughput for every model of said machine, are registered, said required equipments in a predetermined period and a predetermined, predetermined place are computed by calculating the quantity of work per unit time for every mechanical model code.

[0013] [the supply required part calculation means 20] Based on the required equipments computed by the required equipments calculation means 15 and the information (possession machine of the operation contractor of order construction) on the stock F10 according to model for every base through networks, such as the Internet 100, (stock according to model for every area), a part for a mechanical insufficiency and the supply necessity is calculated. Moreover, move required number [for every model of supplied construction equipment] and move origin draws up the optimal rearrangement plan T20 classified by model for every base which has the

information on a movement place (the optimal rearrangement plan classified by model for every area).

[0014] The rearrangement means 30 rearranges construction equipment according to the optimal rearrangement plan T20 classified by model for every base (movement). According to rearrangement of this construction equipment, the stock F10 according to model for every base is updated.

[0015] Moreover, the supply required part calculation means 20 can also calculate a part for the supply necessity as the insufficiency according to model for every user by calculating the required number classified by model for every user by the required equipments calculation means 15, and using the information on the number classified by model of possession for every user about the possession machine of the operation contractor of order construction. Thereby, the optimal rearrangement plan classified by model for every user can be drawn up.

[0016] Drawing 2 is the figure showing an example of the machine characteristic information C10 on drawing 1.

[0017] As shown in drawing 2, construction machinery (machine) SR100 corresponding to contents WKof work100 [in / the whole required machine code CD100 / in the required machine table contained in the machine characteristic information C10 / the construction tender information D50] are registered.

[0018] Drawing 3 is the figure showing an example of the data of the subject corresponding to the construction tender information D50 on drawing 1.

[0019] Subject code CD110 are set up for every subject PR, such as limestone and iron ore, 100. Moreover, in order to calculate processing weight from the processing capacity of a bucket, specific gravity and coefficient CN100 are registered for every subject code CD110.

[0020] Drawing 4 is the figure showing an example of the standard throughput of the machine which the required equipments calculation means 15 of drawing 1 displays.

[0021] The required equipments calculation means 15 Required machine code CD100 of drawing 2, and coefficient CN100 in every subject code CD110 of drawing 3, Based on the standard throughput for every model of machine registered beforehand, standard throughput value CP100 are indicated by list for every model code CD200 corresponding to model name CD210. Suitable model code CD200 are chosen according to this list display.

[0022] Drawing 5 is the figure showing an example of the work load condition table corresponding to the construction tender information D50 on drawing 1.

[0023] Work load condition WK120 are set up (ease, usually a little difficulty, difficulty), and working efficiency WK130 are made to have corresponded every work load condition WK120 of this to the contents of work which the machine of selected model code CD200 performs (0.85, 0.75, 0.65, 0.55).

[0024] Drawing 6 is the figure showing an example of the construction plan based on the

construction tender information D50 on drawing 1 .

[0025] As shown in drawing 6 , corresponding to the mechanical required time DTT, groundbreaking day DTS and the completion day DTE are set up for every injection machine (model name) CD210, and the margin day of the day of margin part addition DF01 and weather amendment DF02 is also set up.

[0026] Next, the flow of the processing in mechanical ways and means is explained in detail.

[0027] Drawing 7 is a flow chart which shows the flow of operation in the supply required part calculation means 20 of drawing 1 .

[0028] First, the construction plan for every days and months shown in drawing 6 is set up (Step S01).

[0029] Construction equipment model calculation (calculation of required equipments) A required for the order construction is carried out (Step S02).

[0030] Change margin addition B by the weather change etc. is carried out about construction equipment use (Step S03). (it corresponds to margin part addition DF01 in drawing 6)

[0031] Based on the user machine use plan F20 computed from the stock F10 according to model for every base of drawing 1 , or the stock according to model for every user, the possession model of a user's usable construction equipment is computed for every days and months in a construction plan (Step S04). (it is the possession model calculation C of usable construction equipment by the construction of a user the whole days and months)

[0032] The amendment (it corresponds to weather amendment DF02 in a part for the amendment weather report margin 70 and drawing 6) about a part for a weather report margin is considered. The insufficient number is calculated by applying the value of the construction equipment model calculation A and the change margin addition B, and pulling the value of the possession model calculation C from this value (Step (insufficient number calculation $A+B-C$) S05).

[0033] Required construction equipment judges a ***** enough (Step S06).

[0034] When construction equipment is enough (inside of a figure, Yes), RIKOMENDO plan creation to a user is performed (Step S07).

[0035] When construction equipment is not enough (inside of a figure, and No), it returns to Step S02, the parameter inputted is corrected, and calculation of the insufficient number of construction equipment is repeated.

[0036] Drawing 8 is a flow chart which shows the flow of the processing in the construction equipment model calculation A of drawing 7 .

[0037] The flow of the construction equipment model calculation A in Step S02 of drawing 7 is explained in more detail using drawing 8 .

[0038] Required machine code CDof construction machinery SR100 corresponding to contents WKof work100 of construction information 100 are selected (Step S10).

[0039] Based on construction information, subject PR100 are selected from the table of a subject (Step S11).

[0040] Based on required machine code CD100, coefficient CN100 for every subject code, and the standard throughput for every model of machine set up beforehand, standard throughput value CP100 are indicated by list for every model code CD200 corresponding to model name CD210 (Step S12).

[0041] Model code CD200 needed from the list display of standard throughput value CP100 are chosen (Step S13).

[0042] Work load condition WK120 to the contents of work which the machine of selected model code CD200 performs are selected. Based on these work load condition WK120 and the standard throughput of selected model code CD200, quantity of work, such as processing dosage, processing weight, etc. per unit time, is calculated for every model code CD200 (Step S14).

[0043] Based on the quantity of work and the construction information per unit time which were calculated here, mechanical required quantity is computed for every model code CD200.

[0044] Drawing 9 is the figure showing an example of the screen which displays the processing in drawing 8.

[0045] According to contents WKof work100 and work load condition WK120 which were inputted, subject code CD110, and target quantity-of-work TG100, selection proposal PL100 including the combination of model name CD210 to need are displayed. A worker is comparing with quantity-of-work WK200 standard throughput value CP100 displayed on selection proposal PL100 with reference to target quantity-of-work TG100, and performs selection or the next data examination by selection AN100.

[0046] Since the ways and means and its supply system of the machine concerning the form of operation are constituted like the above, the effect hung up over below is done so.

[0047] Since it uses combining information, including the construction order situation about the business-proposition affair which a user performs, a season, an accounting period, a market condition, *****, etc., and information, including the possession model in supply side of construction equipment, a place, operation information, reservation assignment, etc., and the electric supply plan of construction equipment is drawn up The supply and demand of a model can be respectively balanced for every areas, such as north and south, and every user.

[0048] Moreover, in order to supply balancing the supply and demand of a model respectively so that short supply may not be started, the supply cost as the whole can be held down and the profit concerning a business-proposition affair in a supply side side and the user side becomes good.

[0049] In addition, in the form of this operation, this invention is not limited to it, but when applying this invention, it is applicable to the technology about suitable mechanical ways and

means and its supply system.

[0050] Moreover, the number of the above-mentioned composition members, a position, form, etc. are not limited to the form of the above-mentioned implementation, but when carrying out this invention, they can be made into a suitable number, a position, form, etc.

[0051] In addition, in each figure, the same mark is given to the same constituent factor.

[0052]

[Effect of the Invention] Since this invention is constituted as mentioned above, the effect hung up over below is done so.

[0053] The model of construction equipment which a user needs, and the number can be estimated timely, and it contributes to canvass for sale.

[0054] Since it uses combining the information about demand, such as construction which a user performs, and the information about supply by the supply side of construction equipment and the electric supply plan of construction equipment is drawn up The supply cost as the whole can be held down by being able to balance the supply and demand of a model respectively, and lessening excessive construction equipment for every areas, such as north and south, and every user, and the profit concerning a business-proposition affair in a supply side side and the user side becomes good.

[Brief Description of the Drawings]

[Drawing 1] It is the figure showing the outline of the supply system of the machine concerning the form of operation of this invention.

[Drawing 2] It is the figure showing an example of the machine characteristic information on drawing 1 .

[Drawing 3] It is the figure showing an example of the data of the subject corresponding to the construction tender information on drawing 1 .

[Drawing 4] It is the figure showing an example of the standard throughput of the machine which the required equipments calculation means of drawing 1 displays.

[Drawing 5] It is the figure showing an example of the work load condition table corresponding to the construction tender information on drawing 1 .

[Drawing 6] It is the figure showing an example of the construction plan based on the construction tender information on drawing 1 .

[Drawing 7] It is the flow chart which shows the flow of operation in the supply required part calculation means of drawing 1 .

[Drawing 8] It is the flow chart which shows the flow of the processing in construction equipment model calculation of drawing 7 .

[Drawing 9] It is the figure showing an example of the screen which displays the processing in drawing 8 .

[Explanations of letters or numerals]

AN100 Selection

C10 Machine characteristic information

CD100 Required machine code

CD110 Subject code

CD200 Model code

CD210 Model name (injection machine)

CN100 Coefficient

CP100 Standard throughput value

D10 Season

D20 Settlement-of-accounts time

D30 Construction order situation

D40 Market condition

D50 Construction tender information

DF01 Margin part addition

DF02 Weather amendment

DTE Completion day

DTS Groundbreaking day

DTT Required time

F10 Stock according to model for every base

F20 User machine use plan

PL100 Selection proposal

PR100 Subject

SR100 Machine (construction machinery)

T10 Demand for every area

T20 The optimal rearrangement plan classified by model for every base

TG100 Target quantity of work

WK100 The contents of work

WK120 Work load conditions

WK130 Working efficiency

WK200 Quantity of work

10 Demand-Forecasting Means

15 Required Equipments Calculation Means

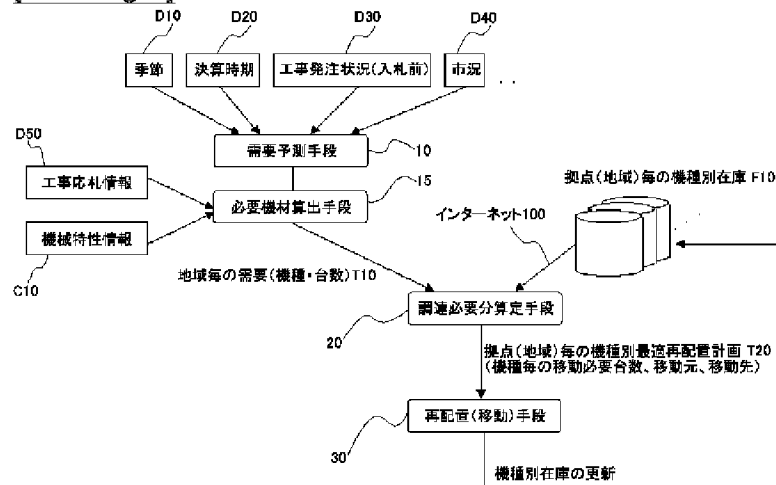
20 Supply Required Part Calculation Means

30 Rearrangement Means

70 A Part for Amendment Weather Report Margin

100 Internet

[Drawing 1]



[Drawing 2]

作業内容	建設機械	必要機械コード
掘削	油圧ショベル	OFR100
.....
積込み	ホイールローダ	OFR120
.....
積込み／運搬	ホイールローダ／ダンプトラック	OFR201
.....
コンクリート処理	自走式破砕機	GAR100

[Drawing 3]

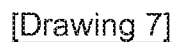
対象物コード	対象物	係数
ST1	石灰岩	0.7
ST2	鉄鉱石	0.6
ST3	砂質土	0.4
ST4	粘性土	0.5
ST5	砂岩	0.6
ST6	安山岩	0.7

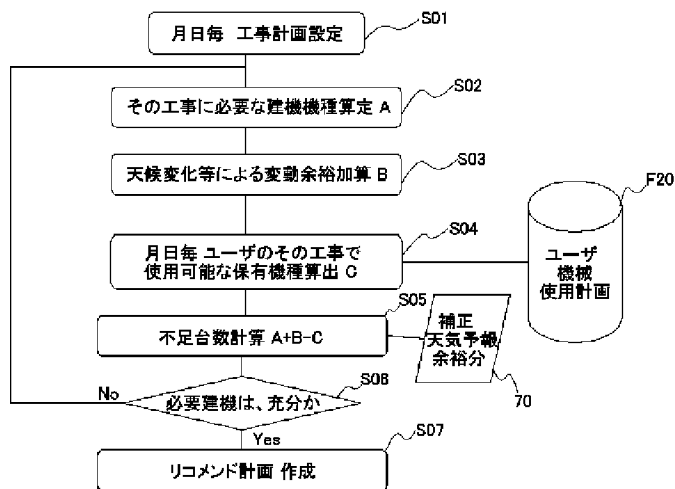
[Drawing 4]

[Drawing 5]

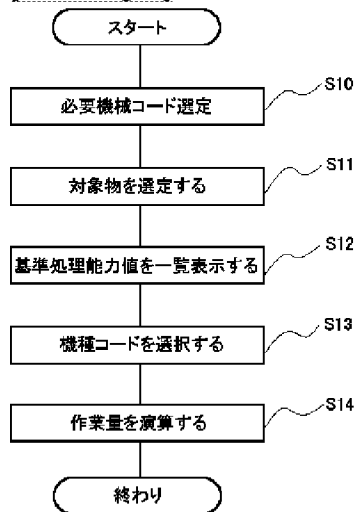
WK130

[Drawing 6]

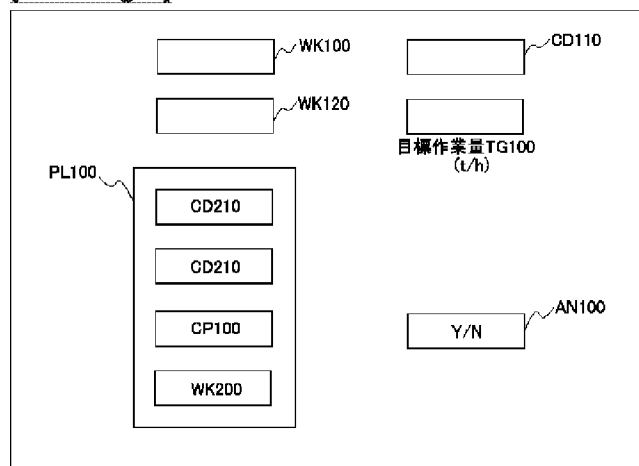




[Drawing 8]



[Drawing 9]



[Translation done.]